Vale District Bureau of Land Management
Cherry Creek Fire Emergency Stabilization Plan (M720)
Environmental Assessment
EA No. OR-030-03-22

Decision Record

This Decision Record documents my decision to select the proposed alternative for implementation of the Cherry Creek Fire Emergency Stabilization Plan. This action was analyzed in the attached Environmental Assessment (EA OR-030-03-022). This proposed action is tiered to and is consistent with the Southeastern Oregon Resource Management Plan dated September 2002, the Malheur County Land Use Plan, and BLM policy.

My decision is to implement actions to construct and maintain temporary fencing to protect approximately 359 acres of burned areas from livestock grazing, drill seed 217 acres, flame burn 60 acres, and monitor natural recovery of desired native vegetation.

DECISION
It is my decision to implement the Cherry Creek Fire ESR Plan. This decision is issued under 43 CFR 4190.1 and is effective immediately due to the immediate substantial risk of erosion and noxious weed invasion due to wildfire. Thus, notwithstanding the provisions of 43 CFR 4.21(a)(1), filing a notice of appeal under 43 CFR Part 4 does not automatically suspend the effect of the decision. The Interior Board of Land Appeals must decide an appeal of this decision within 60 days after all pleadings have been filed, and within 180 days after the appeal was filed (43 CFR 4.416). I have reviewed this plan conformance and NEPA compliance record and have determined that the proposed project is in conformance with an approved land use plan and that no further environmental analysis is required.

Administrative Review

Parties may appeal for administrative review in accordance with the following procedures.

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4. If an appeal is taken, your notice of appeal must be filed in the office of the authorized officer, as noted above, within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

Request for Stay

Should you wish to file a petition, pursuant to regulation 43 CFR 4.21, for stay (suspension) of the effectiveness of this decision pending the outcome of an appeal, the petition for stay must accompany your notice of appeal. Copies of the notice of appeal and petition for a stay must

also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted. A petition for stay is required to show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied
2. The likelihood of the appellant's success on the merits.
3. The likelihood of immediate and irreparable harm if the stay is not granted.
4. Whether the public interest favors granting the stay.

Tom Dabbs
Acting Field Manager
Malheur Resource Area

Date

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Finding of No Significant Impact

The Malheur Resource Area of the Bureau of Land Management, Vale District has analyzed a proposal to construct and maintain temporary fencing to protect areas burned during the July 2003 Cherry Creek Fire from livestock grazing and to monitor native vegetation recovery. The Malheur Resource Area of the Bureau of Land Management, Vale District has analyzed a proposal to flame burn 60 acres, drill seed 217 acres, and build 3.6 miles of fence in and surrounding the area burned during the July 2003 Cherry Creek Fire. Livestock grazing shall be excluded for a minimum of two growing seasons, native vegetation recovery monitored, and the seeded area shall be monitored.

Based on the following summary of consequences and as discussed in the environmental assessment, I have determined that the proposed action will best meet resource management objectives defined in the Southeastern Oregon Resource Management Plan and Record of Decision (USDI-BLM 2002), which constitutes the land use plan for Malheur Resource Area:

- Flame burning the eastern most 60 acres of the fire would decrease the amount of litter over less than 20% of the fire, however it would increase the success of the proposed drill seeding. .

- Drill Seeding perennial grasses in the eastern most 217 acres can be expected to stabilize low to mid seral vegetative sites more quickly than relying on natural re-vegetation. Additional benefits would be obtained from reintroduction of these perennial species, which had been depleted in the certain areas due to historic grazing practices. Drilling would also increase plant community structure and biological diversity, and decrease the likelihood for additional invasion and establishment of cheatgrass, medusahead, and other exotic weeds into these disturbed sites. Drilling would be expected to minimally disturb existing larger bunchgrasses and microbiotic crusts. Drill seeding would create some short term impacts to the remaining vegetation and to the soil surface. However drill seeding bunchgrass and forb species are very likely to stabilize low to mid seral vegetative sites more quickly than relying on natural re-vegetation. Drilling would also increase plant community structure and biological diversity, and decrease the likelihood for additional invasion and establishment of cheatgrass, medusahead, and other exotic weeds into these disturbed sites. Drilling would be expected to minimally disturb existing larger bunchgrasses and microbiotic crusts.

- Construction and maintenance of temporary fencing to exclude livestock grazing would eliminate livestock grazing impacts upon fully available grasses and forbs and allow

recovery of desirable plant species which survived the fire by maximizing the potential of native vegetation to recover from fire impacts. Retention of unburned portions of the Tunnel Canyon Pasture available for livestock grazing as authorized by permit would avoid unnecessary impacts to the affected livestock operator and the local farming/ranching economy.

- Short-term negative impacts from the fire to desired perennial vegetation communities and thus watershed stability would be diminished by the long-term benefits to these resource values and indirect benefits to wildlife habitat, support of local economic enterprises, and enhancement of amenities. Monitoring would provide valuable information for the analysis of treatment success.

Impacts to critical elements of the human environment, including ten points of significance identified in 40 CFR 1508.27(b), are not determined to be in excess of limits requiring the development of an environmental impact statement.

Additionally, management direction provided in the selected alternative is more consistent with the BLM policy (Emergency Fire Rehabilitation Handbook H-1742) and the record of decision of the Southeastern Oregon Resource Management Plan than other alternatives analyzed. The Southeastern Oregon Resource Management Plan states, "Areas burned by wildfire, including those subsequently rehabilitated, will be rested from grazing for one full year and through a second growing season at a minimum, or until monitoring data or professional judgment indicate that health and vigor of desired vegetation has recovered to levels adequate to support and protect upland function."

Thus, on the basis of the information contained in this environmental assessment and all other information available, it is my determination that the proposed action does not constitute a major federal action significantly affecting the quality of the human environment and that an environmental impact statement is not required.

Tom Dabbs — Date
Acting Field Manager
Malheur Resource Area

Vale District Bureau of Land Management
Cherry Creek Fire Emergency Stabilization Plan (M720)
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1. Purpose of and Need for Action

A fire (Cause under investigation) originating on public land in T.22 S., R.45 E., W.M. various sections was detected on July 28, 2003. Cherry Creek Fire (M720) spread to include approximately 359 acres prior to containment at 21:00 on July 29 and control at 16:25 on July 30 (figure 1). The fire occurred exclusively on public land administered by the Vale District Bureau of Land Management. Suppression activities were limited to direct attack, hand crews, engine crews, and a helicopter. Access to the fire was by way of two-tracks and roads and foot travel cross country.

Cherry Creek Fire occurred in the southwest corner of the Tunnel Canyon Pasture of Tunnel Canyon Allotment (10512). The burned area is dominated by native sagebrush/bunchgrass vegetation communities with moderate sized stands of medusa head and cheatgrass. Native communities contained dispersed Wyoming and/or basin big sagebrush (*Artemisia tridentate ssp. Wyomingensis or ssp. tridentata*), rabbitbrush (*Chrysothamnus sp.*), bluebunch wheatgrass (*Pseudorogneria spicata*), Thurber's needlegrass (*Stipa thurberianum*), and Sandberg bluegrass (*Poa secunda*). Cheatgrass (*Bromus tectorum*), tumble mustard (*Sisymbrium altissimum*), clasping pepperweed (*Lepidium perfoliatum*), medusa head (*Taeniatherum caput-medusae*), and other annual species are present. Sagebrush steppe vegetation communities provide summer or year-long habitat for a number of wildlife species including big game animals, upland game species, and sagebrush dependent species.

Interagency guidance and BLM policy, as stated in the Interagency Emergency Stabilization and Rehabilitation Handbook and draft Bureau of Land Management Supplemental ESR Guidance (May 20, 2002) provides for emergency stabilization and rehabilitation where fire has an adverse impact on vegetation, soils, and watersheds and also to minimize other adverse changes to the extent practicable, including the following:

- loss of vegetative cover for watershed protection;
- loss of soil and on-site productivity;
- loss of water control and deterioration of water quality;
- invasion of burned area by flammable annual species which increase the potential for repeated wildfire.

The area burned by Cherry Creek Fire is in need of immediate stabilization or rehabilitation to minimize soil movement, preserve on-site productivity, reduce the invasion and increased dominance of undesirable flammable annual plants or to reduce the potential for increased dominance of existing noxious weed. The area burned by the Cherry Creek Fire is in need of short term protection from grazing impacts to ensure that the impacts identified above do not occur long term. This environmental assessment analyzes the benefits and risks of implementing stabilization actions to protect native perennial vegetation as compared to a no action alternative.

In addition to other National Environmental Policy Act requirements, this environmental

assessment was completed to ensure that treatments identified in the Emergency Stabilization Plan are consistent with the applicable land use plan objectives and decisions. Construction of temporary fencing to control grazing impacts to fire impacted vegetation resources is consistent with the Southeastern Oregon Resource Management Plan and Record of Decision (SEORMP&ROD) as follows:

- The Desired Range of Future Conditions (DRFC) (p 24) defines goals as follow:
  1. "Rangeland vegetation includes a mosaic of multiple-aged shrubs, forbs, and native and desirable nonnative perennial grasses. Shrub overstories are present in a variety of spatial arrangements and scales across the landscape level, including some large contiguous blocks, islands, and corridors. Plant communities not meeting DRFC's show upward trends in condition and structural diversity. Desirable plants continue to improve in health and vigor. New infestations of noxious weeds are not common across the landscape, and existing large infestations are declining. Populations and habitat of rare plant species are stable or continue to improve in vigor and distribution."
  2. "Upland soils have sufficient vegetation cover to minimize accelerated soil erosion. Physical and chemical soil properties as adequate for vegetation growth and hydrologic function appropriate to the specific soil type, landform, and climate."
  3. "Wildland and prescribed fire play an active role in defining the composition of vegetation and limiting the dominance of woody species."
- Specific resource management objectives of the SEORMP&ROD include:
  1. Rangeland Vegetation: "Restore, protect, and enhance the diversity and distribution of desirable vegetation communities including perennial native and desirable introduced plant species. Provide for their continued existence and normal function in nutrient, water, and energy cycles. Manage big sagebrush cover in seedings and on native rangeland to meet the life history requirements of sagebrush-dependent wildlife. Control the introduction and proliferation of noxious weed species and reduce the extent and density of established weed species to within acceptable limits."
  2. Wildlife and Wildlife Habitat: "Manage upland habitats in forest, woodland, and rangeland vegetation types so that the forage, water, cover, structure, and security necessary for wildlife are available on the public land."
  3. Rangeland/Grazing Use: "Provide for a sustained level of livestock grazing consistent with other resource objectives and public land use allocations."

Temporary fencing to ensure short-term exclusion of livestock from burned areas, pending recovery of residual vegetation, is also consistent with policy as stated in the Emergency Fire Rehabilitation Handbook (H-1742) and the SEORMP&ROD as stated on page 40, "Areas burned by wildland fire, including those subsequently rehabilitated, will be rested from grazing for one full year and through a second growing season at a minimum, or until monitoring data or professional judgment indicate that health and vigor of desired vegetation has recovered to levels adequate to support and protect upland function."

Decisions to be made as a result of information provided in this environmental assessment include what practices would be implemented, if any, to exclude physical livestock impacts, herbivory, and other impacts which limit recovery and establishment of desired vegetation resources following the fire. No other federal, state or local government is involved in the NEPA analysis of the proposed actions, beyond issue identification, review, and comment on content of the document.

Internal scoping of issues relevant to the need for stabilization actions and protection from livestock impacts identified the need to ensure that vegetation communities are managed to attain desired future conditions subsequent to the fire, including meeting riparian, upland vegetation, watershed, special status species, and cultural resource management objectives presented in the land use plan. The level of controversy of potential stabilization actions implemented is moderate with two regional environmental organizations requesting to be informed of proposed actions in Tunnel Canyon grazing allotment. Additionally, the Oregon Department of Fish and Wildlife is typically informed of proposed fire stabilization actions, as is the Malheur County Court.

Proposed protection of vegetation resources would be implemented as annual workload for BLM staff and/or through contract with private entrepreneurs. Temporary fencing would be maintained by the livestock operator benefiting from retaining the remainder of Tunnel Canyon Pasture available for grazing.

1.1. Alternatives Analyzed

1.1.1. Proposed Action:

The eastern most 60 acres of the fire would be treated with flame burning (i.e. Propane Burner) to remove residual medusahead seeds. Flame burning involves towing a propane device equipped with booms for the purpose of reducing competition of undesirable grasses, such as medusahead. The 60 acres and an additional 157 acres would be seeded this fall year with perennial grasses and forbs.

Due to the location of Cherry Creek Fire internal to established pastures, approximately 3.6 miles of temporary fencing would be proposed to exclude livestock grazing from areas burned by the fire. Two tenths of a mile of the temporary fence would be built with vehicular access to the site and consistent with the Southeastern Oregon Resource Management Plan for Areas of Critical Environmental Concern (USDI-BLM 2002). The burned and enclosed area would be closed to livestock grazing through July 15, 2005, and until monitoring indicates that desired residual perennial vegetation has recovered to levels that are adequate to support and protect upland function.

No repair of permanent livestock management fence is required since the fire was internal to

Tunnel Canyon Pasture.

Monitoring of the burn area would consist of livestock use supervision, vegetation monitoring and weed monitoring. Detected weeds would be controlled utilizing herbicide and mechanical methods in accordance with the EA and Decision Record for the Noxious Weed Control Program 1994-1998 (USDI/BLM 1994).

1.1.2. No Action Alternative:

No emergency stabilization would be completed. Revegetation of the burned areas would be allowed to occur from seed and plant materials which remain on site and viable following the fire. Livestock would be excluded from Tunnel Canyon Pasture for two growing seasons. No monitoring of the burned area would be completed beyond that scheduled prior to the fire.

2. Affected Environment

This section presents relevant resource components of the existing environment; that is the baseline environment.

2.1. Vegetation, Soils and Watershed:

Native shrub steppe vegetation communities contained Wyoming and/or basin big sagebrush, rabbitbrush, bluebunch wheatgrass, Thurber's needlegrass, and Sandberg bluegrass prior to the 2003 fires. Native forbs found in the burned area include onion (Allium sp.), fleabane (Erigeron sp.), and milkveches (Astragalus sp.). Native perennial bunchgrasses and forbs were past the seed ripe stage of growth, and were therefore not seriously depleted of reserves with the loss of this year's growth. However they had dried to the point of supporting a hot fire in the crowns of the grass plants. Areas immediately adjacent to livestock water sources and up to one mile outside the fire boundary were dominated by annual and biennial herbaceous species including cheatgrass, medusahead, and tumble mustard.

The soils found in the area of the Cherry Creek Fire were surveyed and described in Oregon's Long Range Requirements for Water 1969, Appendix I-11, Owyhee Drainage Basin. Four soil units make up the burned area; Unit 76 soils are on 12 to 20 percent slopes on the western half of the burn unit and Unit S76 are on 20 to 60 percent slopes on the eastern half of the burn unit.

Approximately 15% of the burn is in soil unit 75 on slopes of 3 to 12 percent. This makes up a portion of the easternmost 60 acres to be burnt and drilled. Unit 75 soils are loamy, shallow, very stony, well drained soils over basalt, rhyolite, or welded tuff. They occur on gently undulating to rolling lava plateaus and some very steep faulted and dissected terrain. Native vegetation consists mostly of big sagebrush, low sagebrush, bluebunch wheatgrass, and Sandberg bluegrass. Stones limit the potential of this soil for rangeland seeding.

The rest of the area in this 60 acre burn and drill parcel is in mapping unit 55-56 soils on slopes

of 7 to 20 percent. This mapping unit, which makes up approximately 35% of the burn area, also makes up part of the additional 157 acres to be drilled. This mapping unit consists of approximately 70% unit 55 soils and 30% unit 56 soils.

Unit 55 soils are shallow, loamy, well drained soils with cemented pans. These soils occur on very extensive to moderately steep old fans and high terrace remnants. Native vegetation consists mostly of big sagebrush, low sagebrush, rabbitbrush, budsage, Atriplex spp., needlegrass, squirreltail grass, and Sandberg bluegrass. This soil has a high potential for rangeland seeding.

Unit 56 soils are shallow, well drained soils with clayey subsoils and cemented pans. They occur on very extensive, gently sloping to moderately steep old fans on high terrace remnants. Native vegetation consists mostly of big sagebrush, low sagebrush, rabbitbrush, budsage, Atriplex spp., needlegrass, and squirreltail grass. This soil has potential for range seeding.

The remainder of the acreage to be drill seeded is in mapping unit 76-77 soils on slopes of 3 to 12 percent. This mapping unit makes up approximately 35% of the burn area and is 70% unit 76 soils and 30% unit 77 soils.

Unit 76 soils are shallow, clayey, very stony, well drained soils over basalt, rhyolite, or welded tuff. These soils occur on gently undulating to rolling lava plateaus and some very steep faulted and dissected terrain. Native vegetation consists mostly of big sagebrush, low sagebrush, bluebunch wheatgrass, and Sandberg bluegrass. Stones limit the potential of this soil for rangeland seeding.

Unit 77 soils are very shallow, very stony, rocky, well-drained soils over basalt, rhyolite, or welded tuff. These soils occur on gently undulating to rolling lava plateaus. Native vegetation consists mostly of big sagebrush, low sagebrush, and Sandberg bluegrass. These soils have no potential for rangeland seeding.

The westernmost portion of the burn area is made up of mapping unit 96-75-77. This makes up approximately 15% of the burn area where there are no proposed vegetation treatments. The majority of the mapping unit is unit 96 soils which is a miscellaneous land unit called Rock Land. It consists of rough, steeply sloping areas that are predominantly shallow, very stony soils interspersed with rock outcroppings. Steep Rock land occurs mainly as canyons and escarpments along margins and dissected portions of lava plateaus. These areas are mainly used for wildlife and watershed purposes.

No perennial water sources lie within the proposed treatment area. Drainage is to the west into Owyhee Reservoir, east to Succor Creek, north to Snake River and Columbia River, and west to the Pacific Ocean.

2.2. Noxious Weeds:

Noxious weeds within the perimeter of Tunnel Canyon are common with large amount of cheatgrass and medusahead present. Within the vicinity of Succor, whitetop (*Cardia draba*) dominates a number of dry lakebed soils near Devils Gate, six miles southeast of the fire. Similarly, Russian knapweed (*Centaurea repens*) is present approximately eight miles southeast of the fire on private land at the Bishop Ranch. Vehicle transport along roads and livestock remain the primary agent of noxious weed dispersal, especially for those seeds which are not wind dispersed.

2.3. Livestock Grazing:

Cherry Creek Fire is entirely within the 9,522 acre Tunnel Canyon Pasture of Tunnel Canyon Allotment (10512). Duncan Mackenzie is authorized to graze in this allotment with 1,380 active AUM's. Tunnel Canyon Allotment was classified in the "I" (Intensive) category allotments for management in the 1984 Southern Malheur Rangeland Program Summary Record of Decision, with that classification carried forward into the SEORMP-ROD. The season of use authorized in the allotment is 03/21 through 12/31.

2.4. Wildlife:

Habitat for the following Special Status Species is found in the area: burrowing owl, ferruginous hawk, sage grouse, loggerhead shrike, and Mojave black-collared lizard. The proposed treatment area is within summer and/or year-long range for mule deer and pronghorn antelope. Other wildlife species habitat found in the area includes neotropical migratory song birds, small mammals and reptiles, chukar, California quail, a diversity of raptors and small predators such as coyote and bobcat. This fire was adjacent to a wildlife guzzler constructed and maintained by Oregon Department of Fish and Wildife. The presence of permanent water in an otherwise dry area results in a higher concentration of animals than would normally occur. Wildlife displaced by the fire will likely suffer higher mortality rates due to loss of escape habitat, greater competition for key plants in adjoining areas and a greater risk of predation and/or disease outbreaks. In a natural landscape, small fires such as this one would result in a mosaic of herbaceous openings in an otherwise sagebrush dominated community. However, the high population of annual grasses expected to dominate in the future is not habitat for sagebrush obligate species. Annual grasslands are used by only a few native species, typically long-billed curlews and horned larks with some use by burrowing owls, pronghorns and spring use by mule deer.

2.5. Recreation and Visual Resources:

Dispersed outdoor recreation near the proposed fire stabilization area consists primarily of hunting of upland birds and big game animals. Some dispersed general sightseeing occurs. The western side burned area is within a visual resource management Class I area. The eastern side

of the fire is in a visual resource management Class 4 VRM. The objective of Class I VRM is to preserve the existing character of the landscape. This class provides for natural ecological changes, and it allows limited management activity. The level of change should be low and must not attract attention. Class I is assigned to those areas where a management decision has been made to preserve a natural landscape. This includes areas such as wilderness study areas, areas of critical environmental concern, the wild sections of national wild and scenic rivers, and other congressionally and administratively designated areas.

The objective of Class IV VRM is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful locations, minimal disturbance, and repeating the basic elements.

2.6. Areas of Critical Environmental Concern

One Area of Critical Environment Concern (ACEC) was partially burned in this fire (Map 3). Approximately 80 acres of the 52,506 acre Owyhee Views ACEC burned in the western portion of the wildfire. Relevant and important values for this ACEC include high scenic values associated with the areas's virtually unaltered landscape are bighorn sheep and habitat.

2.7. Cultural Resources and Paleontology

Prehistoric Lifeways

The continued use of the northern Great Basin is can be divided into different chronological periods represented by a different occupational intensity. From 14,000-11,000 B.P. Clovis and Folsum projectile points and a blade and core technology characterize big game hunters and represent the PaleoIndian period. From 11,000-8,000 B.P., represents the climax of cultural development with the lithic technology characterized by seven different projectile point styles. The diversity in projectile point styles suggests not only an improvement in lithic technology but also experimentation with hafting methods. From 8,000-7,000 B.P., and the eruption of Mt. Mazama at 7070 B.P. , there is a decrease in the use of rock shelters. People appear to be moving from lower elevation lake sites to higher elevation spring sites as the climate becomes hotter and drier. Projectile points are corner-notched and classified typologically as the Lake Mohave, Windust, Norther Side-notched, Humboldt Basal-notched, Elko Eared, Elko Corner-notched, and Pinto Willowleaf. The preferred lithic material for projectile points and lithic artifacts shifts from basalt to obsidian. From 5,000-3,000 B.P., climatic conditions shift to warm and moist conditions characteristic of the Medithermal period. The predominate projectile point style is a slender corner notched point with continued use of the previous styles. In the northern Great Basin, Catlow twine is now an important class of perishable artifact. From 3000 B.P. to 1000 A.D. occupation continues without much change in the northern Great Basin. The archaeological evidence suggests a rather stable cultural environment where changes reflect the relative intensity of certain

activities. The final stage of northern Great Basin prehistory, beginning about 1000 A.D., was the occupation of this area by the Numic speaking Northern Paiute. Radiocarbon dates on charcoal samples from Leslie Gulch yielded dates of BC 780 to AD 40 and AD 110 to 410.

With climatic changes, came a shift in floral and faunal species and the appearance of species that characterize arid environments. Overall, the prehistory of the northern Great Basin shows long continuity and adaptive change to distinctive ecosystems with a changing climate. The persistence of lithic and textile traditions and subsistence patters during these chronological periods supports the theory of cultural continuity throughout the northern Great Basin. Settlements of the Northern Paiute were of two types: village and camps. Winter villages of up to fifty huts have been reported, but generally the winter villages consisted of small, unstable groups of about three families located near a major lake or river. Seasonal camps were located wherever there was water and food. Living structures were typically a fence-like windbreak of sagebrush for a temporary or summer camp with a tree or brush sunshade or domed wickiup for both winter and summer use. The subsistence economy of the Northern Paiute was strongly oriented toward the utilization of more than 50 plant species because these provided a more abundant and dependable than fowl, fish or mammals. However, when mammals were available, almost all the parts were utilized. Mammals provided skins, furs, tools and many other by-products of aesthetic and practical value. Insects were often eaten, beetles, grasshoppers, locusts, crickets, ants and caterpillars were consumed, as well as most eggs and larva. These dietary items, which thoroughly disgusted Euro-American observed, were readily available, storable, high protein foods. In addition, historic documents indicated several hundred plants were used by the Indians of the Great Basin for medicinal purposes, fiber sources and food

Historic Lifeways

Exploration into this area began with the expeditions of John Jacob Aster, after he heard the stories from the Lewis and Clark Expedition of 1804-1806. Aster formed the Pacific Fur Company to capture the fur trade in the west. He sent a party by boat to build Fort Astoria and another party overland to explore the country, trap beaver and carry the furs to Astoria. The first written observations of southeastern Oregon can be found in journals kept by men involved in the expansion of fir trapping territory. In 1811, Wilson Price Hunt's party crossed the Snake River in the area of the Weiser River. Ramsey Crooks took nineteen men and followed the south bank of the Snake River, through Malheur County and past Farewell Bend, however, after entering Hell's Canyon in November, the weather turned bad and they were forced to turn around. and camp with Hunt at the mouth of the Weiser River. Eventually the Hunt and Crooks parties made their way to Fort Astoria. In 1812, Crooks and Robert Stuart were sent east, backtracking the route of their westward journey. They camped opposite the Weiser River on August 13, 1812. Journal excepts show that they had crossed the Malheur and the Owyhee Rivers. Prior to 1858, military activity in eastern Oregon was limited to providing escorts for immigrant parties on the Oregon Trail, and to military exploration. In 1858, the

Military department of Oregon was established under the command of General William S. Harney, thus assuring military aid and protection for Euro-American expansion into previously hostile country. In 1859, the military began their explorations in southeast Oregon. Their principal interests were additional supply and communication lines. In 1860, the Military Department of Oregon was merged with that of the Pacific and the regular force in the Northwest was reduced. Drafts were made on it to increase the army in the East, in preparation for the coming Civil War. During the 1860s, the majority of Euro-Americans in southeastern Oregon were involved with horses, cattle, grain, and hay production, or road building, ferrying. freighting, or were associated with the military. Troops were responsible for protecting the settlers, miners and transportation routes between California and western Oregon to the Idaho mines. Euro-American settlements, like those of Native Americans can be found around water sources and the floodplain of the Owyhee River was prime farmland for hay, and fruit. The settlement of Watson was located approximately 4 2 miles south of Leslie Gulch.

Paleontology

No extensive survey for paleontological resources has been undertaken in the project area. The Sucker Creek formation is one of the most famous and most extensive ash flows of the Miocene era. The ash and lava expelled during the middle Miocene occurred during one of the most explosive volcanic episodes, which resulted in calderas up to 22 miles in diameter. The Sucker Creek formation yields preserved fossil plants such as oak, pine, willow and maple as well as vertebrate fossils of horse, rhinocereous, peccary, camel and oreodonts. Newly identified fossil localities have yielded fossil species of moles, shrews, bats, rabbits, and other rodents.

2.8. Special Status Plants:

No plant species listed or proposed for listing under the Endangered Species Act of 1973 are known to be present within the area burned. The area has been only partially inventoried for Ertter's senecio (*Senecio ertterae*) which occurs several miles to the east of the burned area near Swigert Cow Camp. The area has been only partially inventoried for sterile milkvetch (*Astragalus sterilis*) which occurs between the Owyhee Reservoir and the burned area. The likelihood of either species to occur is low due to a lack of appropriate habitat. As a result, analysis of impacts to special status plant species from actions considered will not be included in the environmental consequences section.

2.9. Climate/Topography:

Cherry Creek Fire occurred in rocky rolling hills at approximately 4100 feet elevation above sea level. Semi desert shrub steppe vegetation communities result from cold winters and hot dry summers. The long term average annual precipitation is 10-12 inches (SEORMP-ROD map HYDR-1)). Precipitation occurs primarily as snow fall during the winter with occasional mid-summer thunder storms, often accompanied by lightning.

Neither the proposed actions nor the no action alternative will impact climate or topography.

2.10. Other Mandatory Elements:

The following mandatory elements are either not present or would not be affected by the proposed action or alternatives:

Air Quality
Wild Horse/Burro Management
Native American Religious Concerns
Hazardous Wastes
Prime or Unique Farmlands
Wetlands/Riparian/Flood Plains
Wild and Scenic Rivers
Wilderness Study Areas
Research Natural Areas
Environmental Justice
Actions to Expedite Energy-Related Projects (Executive Order No. 13212 of May 18, 2001)

3. Environmental Consequences

This chapter is organized by alternatives to illustrate the differences between the proposed action and the no action alternative.

3.1. Proposed Action Alternative:

Consequences of implementing the proposed alternative, flame burning, drill seeding, temporary fencing to exclude livestock grazing and monitoring of recovery of existing vegetation recovery, would result as summarized in the following sections.

3.1.1. Vegetation, Soils and Watershed:

Flame burning would reduce the amount of litter in the flat, on the most eastern portion of the burned area. The litter is primarily medusahead seed heads and stubble. The flame burning will reduce the amount of annual grasses on site which will assist in establishing drill seeded species based on reduced competition. A similar wildfire near Alturas, California, quickly spread across a medusahead-dominated area and the litter did not completely burn, leaving behind viable medusahead fruits in the lightly charred litter. Bioassays of the burned soil found over $6.2x10^6$ germinable seeds of medusahead per acre (unpublished data; R. R. Blank, USDA/ARS, Reno, NV).

Drilling bunchgrasses and forb species are expected to stabilize low to mid seral vegetative sites more quickly than relying on natural re-vegetation. Additional benefits would be obtained from

reintroduction of these perennial species, which had been depleted in the certain areas due to grazing practices and wild horses. Drilling would also increase plant community structure and biological diversity, and decrease the likelihood for additional invasion and establishment of cheatgrass, medusahead, and other exotic weeds into these disturbed sites. Drilling would be expected to minimally disturb existing larger bunchgrasses and microbiotic crusts.

Drill seeding would create some short term impacts to the remaining vegetation and to the soil surface. However, the long term benefits from reestablishing perennial vegetation would quickly out-weigh these short term disturbances. The disturbances caused by rangeland drill disk indentations vary, depending largely upon soil moisture and soil texture. Disturbance on moist soils is much less than on dry soils. The disks also dig deeper into coarser textured sandy soils, thereby creating more disturbance than would occur on finer textured loamy soils. These impacts can expose the roots of shallow rooted grass, particularly Sandberg bluegrass, resulting in the loss of some of these individuals. In other cases, however, dense stands of Sandberg bluegrass can prevent the disks from penetrating into the soil. Again this is also influenced by soil moisture and soil texture. It is anticipated that some (less than 10%) Sandberg bluegrass individuals could be lost to drilling. Deeper rooted perennials grasses such as bluebunch wheatgrass are less likely to be impacted by the disks. In an effort to reduce these impacts, drill seeding would occur as late in the fall as possible, in order to increase the likelihood of seeding into moister soils.

Temporary exclusion of livestock from a portion of Tunnel Canyon Pasture would allow recovery of residual desirable species without impacts from cattle grazing and reduced impacts from wildlife species.

Soil erosion would increase in the short term as a result of loss of vegetative and litter cover from the fire. Soil erosion rates would decrease as seeded perennial species and non seeded perennial species, including grasses and forbs which in combination fill much of the soil profile with roots, regain dominance of the site in years subsequent to the fire.

3.1.2. Noxious weeds:

Reestablishment of perennial grass and forbs will assist in curbing possible annual grass fire cycles from developing. Reestablishment of perennial species would help prevent the potential for introduction and spread of noxious weeds, particularly whitetop and Russian knapweed. Reestablishment of a diverse shrub component through natural seed dispersal from surrounding vegetation communities would more fully occupy the soil profile with roots of desirable shrub species as compared to shallow rooted perennial grasses and forbs alone. Restoration of full occupation of the soil profile with roots of desirable species would provide additional competition to reduce establishment of deep rooted weedy species. Reestablishment of diverse perennial vegetation communities including grasses, forbs, and shrubs would help prevent or minimize the proliferation and invasion of noxious weed species within the burned area and adjacent to roads impacted by suppression actions. A reduction in the occurrence of weeds adjacent to roads would limit transport of seed to new sites within the burn area and offsite.

Increased inventory for noxious weeds and appropriate treatment would preclude their establishment and spread into niches opened by the fire.

3.1.3. Livestock Grazing:

Livestock would be excluded from the burned area for at least two growing seasons. Livestock permittees would be required to maintain the temporary fences when livestock are in areas adjacent to those fences increasing operational costs to those permittees. In the long term, positive benefits would accrue to livestock operators due to the establishment of perennial vegetation. An increased and more stable forage base would be established, allowing for increased livestock gains and more stable livestock operations over the long term.
Livestock would be excluded from the burned portion of the Tunnel Canyon Pasture through at least two growing seasons and until existing perennial herbaceous species regain vigor. This area comprises approximately 714 acres (about 7.5 percent) of Tunnel Canyon Pasture.

Scheduled grazing within Tunnel Canyon Pasture identifies an estimated average annual use of 1035 AUM's by cattle. This use represents approximately 72 percent of the authorized use of 1380 AUM's in Tunnel Canyon Allotment. Thus, the proportionate loss of forage productivity from fencing out the area burned represents approxiamately 5 percent of this operator's authorization. No adjustment in the established grazing schedule would be necessary as a result of excluding livestock from approximately 714 acres within the Tunnel Canyon Pasture.

3.1.4. Special Status Species and Wildlife:

The propane burning of the previously burned area will have no impact on special status species or wildife. The construction of the exclosure fence will not have an effect on wildlife habitat or individual animals unless it occurs during a time of year wildlife are concentrated in the area; such as late winter construction while wintering deer are present. The presence of a new fence in a formerly unfenced area creates the risk of injury or death to wildlife that are not familiar with the new project. This maybe a higher risk than typical due to the presence of the wildlife guzzler that has attracted animals for several decades. The risk could be reduced if white topped fence posts were used and flagging was tied to the wire at intervals to make it more visible.

Because drilling would occur during late fall, when animals are not tied to a breeding territory, there would be little disruption to wildlife. Seeding native grasses, forbs and shrubs would improve habitat for most wildlife species compared to allowing cheatgrass or medusahead to dominate. Tall bunch grasses, forbs and shrubs would provide structure and cover for nesting birds and other wildlife, as well as provide competition to help reduce cheatgrass and medusahead invasion. Brewer's sparrows, sage thrashers, sage grouse and sage sparrows, which are all sagebrush-obligate songbirds, have been found to use native and non-native seedings extensively when sagebrush had grown back to greater than 5% cover. Areas dominated by cheatgrass or medusahead are used as a breeding area by only a few species, such as burrowing

owls, horned larks and long-billed curlews.

Forbs and shrubs are more desirable forage species for wildlife than perennial grasses. Cheatgrass is a highly preferred forage for deer and pronghorn during fall and spring green-up due to the high protein content but the duration of palatability is short. Seeding only perennial grasses will provide little benefit to wildlife since few species can digest the high silica content present most of the year. Only if forbs and shrubs comprise a large percentage of the resulting community would seeding outweigh the value of annual grasses as a food source for big game. All breeding birds depend on insects for feeding their offspring. Forbs are key to insect populations, with little benefit provided by annual or perennial grasses.

Small burns, such as occurred here, produces a mosaic of habitats for wildlife; which generally is beneficial. However, burned areas, if dominated by annual grasses are a high risk for future fires and place adjoining native shrublands at risk of conversion to earlier succession communities – with subsequent loss of key wildlife habitat.

3.1.5. Recreation and Visual Resources:

All actions under this alternative would have a positive impact on visual resources over the long term. Management objectives of each visual resource management class would be met. Anticipated improvements in vegetative cover and diversity would enhance scenic quality and result in more primitive and natural appearing landscapes. Over the short term, there would be a slightly negative impact on visual resources due to the construction of the temporary fence. Until vegetation is reestablished, there would be a short term visual affect where seed drilling occurred with the linear appearance of furrow marks. Seeding/planting would reclaim site-specific evidence of off-road vehicle use created during or following fire suppression activities, resulting in a minimized, to no appearance of visual contrast caused by such vehicular use.

There would be some positive impact to recreational values under this alternative. If the seedings are successful, improvements in scenic quality due to improved vegetative condition would positively affect recreationists' experiences. Improved habitat conditions for wildlife would lead to improved opportunities for nature study, wildlife viewing, and hunting. Over the short term, recreational travel would be made slightly more difficult due to the construction of temporary fences.

3.2. Areas of Critical Environmental Concern (ACEC)

Adjacent exotic annual species would be displaced by the perennial natives, potentially leading to reduced fire frequencies and greater plant community stability. Rest from livestock grazing would enhance values by increasing recovery potential for native species with the construction of the temporary fence.

3.2.1. Cultural Resources:

A Class III cultural resources survey and a survey for paleo resources would be conducted prior to surface disturbing activities. Recorded sites, prehistoric, historic or fossil localities would be flagged and avoided during rehabilitation activities.

3.3. No Action Alternative:

Consequences of implementing the no action alternative, exclusion of livestock from the 13,285 acre Tunnel Canyon Pasture of Tunnel Canyon Allotment to implement policy, would result as summarized in the following sections.

3.3.1. Vegetation, Soils and Watersheds:

The No Action alternative would result in no short term impacts caused by drilling. However, under this alternative there would be a greater likelihood that cheatgrass and medusahead would occupy the bare ground, with a high risk to permanently dominate the burned area. Because these grasses thrive in this type of environment, portions of the area may cross a threshold into a fire-dependent, annual-dominated community. The short fire frequency associated with these annual-dominated communities would permanently prevent the site from returning to its pre-burn conditions. In addition to the increased fire hazards, an annual-dominated community would provide poor wildlife habitat, make the site more susceptible to noxious weed invasions, and provide few values associated with diverse plant communities.
Opportunities for invasion of undesirable weedy plants species, (such as noxious weeds, cheatgrass, and medusahead) would increase dramatically.
Overall, this alternative would be negative to various degrees on the health of these lands, depending on the success of the existing vegetation to reestablish in a timely manner. Although there would be no short term soil erosion impacts due to seeding, there would still be short term erosion due to the lack of vegetative cover on the soil surface in the burn. Failure to treat sites after fire can result in irreversible dominance by annual species (such as cheatgrass). The fire-return interval for this area is higher than natural and will continually burn with undesirable annual plant invasion. This rate of return increases the potential for soil erosion, soil nutrient loss, and the effects to and loss of microbiotic crust. Without rehabilitation the dominance of weedy, annual species could surpass the prefire conditions thereby decreasing soil stability, hydrologic function, and nutrient cycling.

3.3.2. Noxious weeds:

A reduction in the occurrence of weeds adjacent to roads would limit transport of seed to new sites within the burn area and offsite. Failure to intensify inventory for noxious weeds and appropriate treatment would encourage their spread and establishment into niches opened by the fire. Weeds left untreated/detected pose a greater threat of spread to previously non-invaded areas. In the absence of competition from desirable, perennial vegetation, the entire burn would be highly susceptible to domination by noxious weeds found in and adjacent to the site. Root

systems on whitetop and Russian knapweed are damaged little by wildfire. Livestock production and wildlife habitat may be further negatively impacted in the long term if noxious weed species increase in the burn area, further reducing forage production.

3.3.3. Livestock Grazing:

Not flame burning the eastern portion of the fire would allow medusa head ryegrass and cheatgrass to become dominant, which would reduce the forage base for livestock. Medusa head ryegrass is not palatable to livestock.

Not drill seeding perennial grasses in the burn would allow the burn to become dominated with cheatgrass and medusa head, which would reduce the forage base for livestock. Although cheatgrass is palatable to livestock, it does not remain palatable for as long as perennial grasses do. Furthermore, it's forage production is highly variable and does not produce the dependable forage that the deep rooted perennial plants produce.

Livestock would be excluded from Tunnel Canyon Pasture through at least two growing seasons and until existing perennial herbaceous species regain vigor. This area comprises approximately 9,522 acres of the 13,285 acres of public land within Tunnell Canyon Allotment.

Scheduled grazing within Tunnel Canyon Pasture identifies an estimated average annual use of 1035 AUM's by cattle. This use represents approximately 72 percent of the authorized use of 1380 AUM's in Tunnel Canyon Allotment. Thus, the proportionate loss of forage productivity from excluding from use the entire Tunnel Canyon Pasture represents a significant portion of this operator's authorization. Considerable adjustment in the established grazing schedule would be necessary as a result of excluding livestock from Tunnel Canyon Pasture or the livestock operator would be required to find alternate forage during those periods of scheduled use of Tunnel Canyon Pasture in 2004, 2005, and additional years as required to restore vigor of fire impacted perennial vegetation.

In the long term, slight positive benefits would accrue to the livestock operator due to the maintenance of perennial vegetation within a small portion of Tunnel Canyon Allotment.

3.3.4. Wildlife:

With no reseeding of the taller bunchgrasses, forbs or shrubs, the project area would have no or very few plants to provide cover for wildlife. However, species such as burrowing owls, long-billed curlews and horned larks that prefer short vegetation would benefit from this alternative. Also, during fall and spring green-up an abundance of high protein cheatgrass forage would be available to deer and pronghorn; with escape cover present in the adjoining unburned areas.

If cheatgrass increased in dominance there would be an increased likelihood of future fires, further reducing the possibility of the area eventually providing habitat for sage dependent species. As annual grass-dominated areas increased in size there would be a decreasing relative

value of the openings in relation to shrub covered habitat. If noxious weeds invaded the annual grass opening due to lack of competition from a diversity of native plant species there would be a large decrease in future habitat values.

3.3.5. Recreation and Visual Resources:

This alternative would have a negative impact on visual resource management. Scenic quality would deteriorate if there was significant erosion or increased domination of the plant community by invasive weed species. This alternative would have negative impacts to recreation. Deteriorated habitat conditions would have a negative affect on nature study and wildlife-related recreation.

3.4. Areas of Critical Environmental Concern (ACEC)

Impacts would be the same as described in "Vegetation, Soils and Watershed" above. In addition, values for which the ACEC has been designated may be compromised due to invasion by noxious weeds.

3.4.1. Cultural Resources:

Cultural and paleo resources would not be impacted with no stabilization activity planned as a result of the 2003 Tunnel Canyon fire.

4. Adverse Effects:

Unavoidable adverse effects from implementation of the proposed action or no action alternative are limited to those impacts to soil and vegetation function described in the text above.

5. Short-term and Long-term Impacts:

Long-term cumulative impacts are related to the ability of the watershed to recover from the burn. The rate of recovery will depend on the ability of the native plant communities to out compete cheatgrass and medusahead. Past experience with rangeland fire in eastern Oregon and southwestern Idaho, have shown the aggressive nature of cheatgrass/medusahead will dominate these range sites following fire, if left untreated. Short-term impacts to soil and vegetation resources during construction and removal of approximately 3.6 miles of temporary fence would be offset by long-term benefits to upland vegetation community function consistent with standards for rangeland health and guidelines for livestock management. Long-term control of the spread and introduction of noxious weed species would also occur with increased inventory and treatment. Long-term benefits resulting from the limited accumulation of fine fuels of annual species would limit spread of future fire in the burned and adjacent areas. Potential short and long-term impacts of the No Action alternative include:

- loss of habitat diversity to invasive annual species and noxious weeds
- degradation of watershed stability and riparian function
- loss of forage for wildlife, livestock and wildlife
- loss of recreational opportunities associated with wildlife, scenic quality, and aesthetic quality
- threats to the integrity of cultural sites and artifacts
- degraded ACEC area values

6. Irreversible or Irretrievable Commitment of Resources:

Should the proposed fence not function as expected to protect recovering vegetation resources or should it have unforeseen negative impacts, it could be removed or redesigned with no irreversible or irretrievable commitment of resources.

7. Mitigating Actions

Due to the proposed fence location within the ACEC, transportation of materials to the project site for construction and removal of materials at the end of the period deemed necessary to protect vegetation resources would be minimized to avoid leaving permanent vehicle tracks. Fence posts for the temporary electric fence would be green without white tops to. In order to minimize injury and death to wildlife, which a new fence can create, one wire on the fence would have ribbon on it. Brace points would be built with EZ panels or similar structures to limit surface disturbance. The temporary fence would consist of one strand of smooth wire and two strands of barbed wire.

8. List of Preparers/Reviewers:

Mitch Thomas	Rangeland Management Specialist
Bob Alward	Outdoor Recreation Planner, Wilderness
Jean Findley	Botanist
Diane Pritchard	Archaeologist
Shaney Rockefeller	Hydrologist/Soil Scientist
Al Bammann	Wildlife Biologist
Lynne Silva	Range Technician, Weeds
Tom Hilken	Planning and Environmental Coordinator
Tom Dabbs	Field Manager, Malheur Resource Area

9. List of Agencies, Organizations, and Persons to

Whom Copies of the EA are Sent:

Hal Shepherd, Northwest Environmental Defense Center
Stuart Garrett, High Desert Chapter, Native Plant Society of Oregon
Audubon Society of Portland
Doug Heiken, Oregon Natural Resources Council
Katie Fite, Committee for The High Desert
Irene Markeley
Mark McKenzie
Sam McKenzie
Duncan McKenzie
John and Lisa Davis
Larry and Kay Davis
Walt Van Dyke, Oregon Department of Fish and Wildlife
Malheur County Court
Oregon State Historical Preservation Officer
Bureau of Reclamation
Oregon Wildlife Federation
Malhuer County Grazing Advisory Board
Robert & Sara Skinner
Honorable Russ Hursh – Malhuer County Judge
R & S Media – Leo Ramos
Idaho Power
Idaho Watershed – Interested Publics
Western Watersheds – Jon Marvel
Oregon Natural Desert Association
A file search completed July 21, 2003, identified no additional requests by members of the public to be considered an interested public for Tunnel Canyon Allotment.

10. Literature Cited:

USDI-BLM 1984. Southern Malheur Rangeland Program Summary (RPS). U.S. Bureau of Land Management, Vale District, Oregon. 24 p.

USDI-BLM 1994. Decision Record for the Noxious Weed Control Program for Vale District. U.S. Bureau of Land Management, Vale District, Oregon.

USDI-BLM 1995. Interim Management Policy for Lands Under Wilderness Review (H-8550-1). U.S. Bureau of Land Management, Washington, DC. 49 p.

USDI-BLM. 2002. Southeastern Oregon Resource Management Plan and Record of Decision (September 2002). U.S. Bureau of Land Management, Vale District, Oregon. 1 v.